THU NGUYEN (SHE/HER)

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EDUCATION

Bachelor of Engineering in Computer Engineering - Stony Brook University

Graduating May 2028

- Awards: You Are Welcome Here Scholar, Global Excellence Scholarship
- Coursework: Introduction to Electrical & Computer Engineering, Discrete Mathematics, Calculus

QUALIFICATIONS

Responsive Web Design (freeCodeCamp) - Certificate

January 2025

AP Computer Science A (Object-Oriented Programming in Java): 4/5

May 2024

SKILLS AND TOOLS

- Languages: Python, Java, JavaScript, HTML/CSS, C/C++
- Framework: React, Node.js, Express.js, MongoDB
- AI/ML Libraries: OpenCV, NumPy, Pandas, Keras, Matplotlib
- Developer Tools: VS Code, Anaconda, Google Colab, Kaggle, Git/GitHub, Figma
- Hardware: Arduino IDE, MPLab X IDE, Oscilloscopes, Multimeters, Breadboards, Programmable Logic Devices
- Soft Skills: Leadership, Teamwork, Communications, Critical-thinking, Problem-solving, Time management

RELEVANT EXPERIENCES

Undergraduate Research Assistant - Stony Brook University

January 2025 - Present

- Assist faculty members on a project funded by the Office of Naval Research about Humans in the Loop Learning for collaborative problem solving (CPS).
- Review research papers and articles about social learning networks and team formation strategies to summarize the pros and cons of those academic resources.
- Optimize team formation strategies and improve social learning networks by considering multi-dimensional team dynamics.

Second Prize Winner - SBU AI Community Internal Competition

October 2024 - November 2024

- Participated in a group of 2 to develop a convolutional neural network model to recognize resistors based on their color bands with an accuracy of approximately 72% when tested with the testing dataset.
- Utilized OpenCV to preprocess the dataset and Pandas to manipulate the CSV file. Augmented the data using PyTorch for a larger dataset which led to greater accuracy.

PROJECTS

Stony Brook University Food Application - Figma Demo

October 2024 - Present

- Participated in a group of 6 to develop a mobile application for Stony Brook University students to find, track information, and order food from campus dining halls.
- Created the application UI/UX design on Figma with DoorDash app inspiration to ensure smooth and seamless user experiences.
- Developing front-end and API for the app.

Meals Browser ReactJS Website - <u>Live Demo</u> | <u>GitHub Code</u>

December 2024

• Developed and deployed a GitHub Page website using HTML, CSS, and JavaScript for users to browse meals based on search input. Fetched data from TheMealDB API using ReactJS.

MNIST Support Vector Machine Classifier - Google Colab Code

July 2024

- Developed a supervised machine learning model using the Support Vector Machine algorithm to classify the handwritten characters 0's and 1's from the MNIST dataset. Achieved the correct prediction rate of 99.9%.
- Developed the Support Vector Machine algorithm from scratch using L-1 Norm Linear Regression to enhance mathematics understanding of Machine Learning algorithms.